

ABSTRACT OF THE DISCLOSURE

A semiconductor device includes a post-oxide film comprising first, second and third portions. The first portion extends on the sidewall of a gate electrode provided on a gate insulating film on the surface of the semiconductor substrate to the surface of the semiconductor substrate. The second portion extends on the surface of the semiconductor substrate and contacts with the first portion. The third portion extends on the surface of the semiconductor substrate with its end contacting with an end of the second portion opposite to the first portion and is thinner than the second portion. A spacer covers the first portion on the second and third portions. Source/drain extension layers, in the surface of the semiconductor substrate, sandwich a channel region under the gate electrode. Source/drain diffusion layers, in the surface of the semiconductor substrate, contact with ends of the source/drain extension layers opposite from the channel region.